Amendments to the Specification

Paragraph at page 10, lines 6-24:

A third approach, illustrated in FIG. 5, moves the lift pins to the edge exclusion zone [[52of]] 52 of the wafer 12, preferably within the same peripheral wafer region overlapping the edge ring shelf 62, for example, the outer 2mm of the wafer 12 and the inner 2mm of the edge ring shelf 62. As a result, the edge ring 62 requires some redesign around the areas of the lift pins 22. It is noted that the edge ring 62 rotates during conventional operation while, of course, the lift pins 22 do not. However, the aforecited patent application 10/243,383 discloses apparatus for assuring that the edge ring rests in a known angular position. As illustrated in the plan view of FIG. 4, the edge ring 62 has a shape generally corresponding to that disclosed by Ballance et al. in U.S. Patent 6,395,363 in which the wafer 12 is supported on the shelf 60 which slopes inwardly and downwardly at a few degrees from a outwardly extending back ring 68 that rests on the rotating cylinder 30. The sloping shelf 60 acts to center the wafer 12 on the edge ring 62. To accommodate the lift ring 22 positioned to correspond to the wafer edge exclusion zone 52, a cut out 70 is formed in the inner periphery of the shelf 62 to allow the lift pin 22 to pass the edge ring 64 and support the wafer 12 above the edge ring shelf 62. However, to prevent light leakage around the edge ring 64, the cut outs 70 should reliably extend no further outwardly than the edge of the wafer 12. Such a structure is replicated for all the lift pins 22. Although the edge ring 64 provides minimal overlap to the wafer 12 in the areas of the cut outs 22, the majority of the shelf 62 continues to overlap the wafer 12 in its edge exclusion zone 52.

Paragraph at page 11, lines 11-28:

The inverted orientation of the wafer also requires modification of the paddle or other apparatus used to transfer the wafer into and out of the reactor. Typical transfer paddles support the wafer on significant portions of the wafer's gravitational bottom, which would likely incur severe damage if the bottom contains the developing IC structure. A modified paddle 80 configured for use with the inverted orientation of the invention is illustrated in plan view in FIG.

6. The paddle 80 includes a substantially flat inner portion 82 having on each of its two axial ends a transition 86 [[88]] to a support end 88, which slopes upwardly in the outward direction while being circularly symmetric about the wafer center. The sloping support end 88 supports a beveled corner of a wafer 12' in a configuration similar to that of the edge ring 68 with the central part of the wafer 12' elevated above the central paddle portion 82. A similar end configuration occurs at the opposite unillustrated end of the paddle 80. The principle motion of paddle is along the axis of the paddle to transfer the wafer 12' to and from the edge ring 64. In one configuration, the paddle 80 and its support arm cantilevered away from the outside of the edge ring 64 can be positioned always above the edge ring 64. Two lift pins 22 are located outside the path of the paddle 80. Both paddle ends may be split into fingers having separate sloping support ends. On the distal end of the paddle, a single support pin may be located between the fingers rather than outside the paddle path.